SUBJECT:
Off Pedal Rear Brake Howl/Moan

OVERVIEW:
This bulletin involves replacing the rear disc brake adapters.

MODELS:

<table>
<thead>
<tr>
<th>Year</th>
<th>(NS)</th>
<th>Voyager/Caravan/Town &amp; Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-2000</td>
<td>(GS)</td>
<td>Chrysler Voyager (International Markets)</td>
</tr>
<tr>
<td>2001</td>
<td>(RS)</td>
<td>Voyager/Caravan/Town &amp; Country</td>
</tr>
<tr>
<td>2001</td>
<td>(RG)</td>
<td>Chrysler Voyager (International Markets)</td>
</tr>
</tbody>
</table>

NOTE: THIS BULLETIN APPLIES TO VEHICLES EQUIPPED WITH ALL WHEEL DRIVE (AWD).

SYMPTOM/CONDITION:
During low speed and/or low speed turns such as a parking lot maneuver, with no brake pedal pressure applied, a low frequency howl/moan noise is heard from the rear brake area.

DIAGNOSIS:
If the vehicle operator describes the Symptom/Condition above, perform the Repair Procedure.

PARTS REQUIRED:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>05073640AA</td>
<td>Adapter, Right</td>
</tr>
<tr>
<td>1</td>
<td>05073641AA</td>
<td>Adapter, Left</td>
</tr>
<tr>
<td>2</td>
<td>02207919</td>
<td>Clip (NS/GS vehicles only)</td>
</tr>
<tr>
<td>2</td>
<td>NPN</td>
<td>Cotter Pin</td>
</tr>
<tr>
<td>AR</td>
<td>J8993704</td>
<td>Brake Grease</td>
</tr>
</tbody>
</table>

EQUIPMENT REQUIRED:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8214-1</td>
<td>Remover, Hub/Bearing</td>
</tr>
<tr>
<td>C-3919</td>
<td>Gauge, Brake Shoe</td>
</tr>
</tbody>
</table>

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**REPAIR PROCEDURE:**
1. Apply the parking brake and raise the vehicle on an appropriate hoist.
2. Remove right rear tire and wheel assembly.
3. Remove the cotter pin, nut retainer, and spring washer from the stub shaft on the outer C/V joint (Fig. 1).

![Fig. 1 COTTER PIN AND NUT RETAINER](80a99a1)

4. Remove the hub nut and washer from the stub shaft of the outer CV joint.
5. Mark the driveshaft inner joint location to the rear driveline module flange.
6. Remove the 6 bolts mounting the driveshaft inner joint to the output shaft of the rear driveline module (Fig. 2).
7. Remove the wheel speed sensor from the rear hub/bearing (Fig. 3).

8. Remove the driveshaft from the rear driveline module and hub/bearing. The driveshaft is removed by first compressing the inner joint on the driveshaft and removing it from the driveline module. Then, slide the outer joint of the driveshaft out of the hub and bearing.

9. Release the parking brake.

10. Create slack in the rear parking brake cables by locking out the automatic adjuster as described. Grasp the exposed section of the front park brake cable and pull downward on it. Then install a pair of locking pliers on the front brake cable just rearward of the second body outrigger bracket (Fig. 4).
11. Remove the park brake cable from the adapter by:
   a. NS/GS vehicles: removing and discarding the horseshoe clip from the retainer on the end of the park brake cable.
   b. RS/RG vehicles: removing the park brake mounting bolt.
12. Remove the end of the park brake cable from the actuator lever on the adapter.
13. Remove the park brake cable from adapter by using a 1/2" wrench slipped over the park brake cable retainer as show in (Fig. 5) to compress the locking tabs on the park brake cable retainer.
14. Remove the disc brake caliper to adapter guide pin bolts.
15. Remove caliper from the adapter using the following procedure:
   a. Rotate rear of caliper up.
   b. Pull the front of the caliper and the outboard brake shoe anti-rattle clip out from under the front abutment on the adapter.
16. Support the caliper to prevent the weight of the caliper from damaging the flexible brake hose.
17. Remove the rotor from the hub/bearing.
18. Remove the four hub/bearing to axle mounting bolts.

**CAUTION:** CORROSION MAY OCCUR BETWEEN THE HUB/BEARING AND THE AXLE. IF THIS OCCURS THE HUB/BEARING WILL BE DIFFICULT TO REMOVE FROM THE AXLE. IF THE HUB/BEARING WILL NOT COME OUT OF THE AXLE BY PULLING ON IT BY HAND, DO NOT POUND ON THE HUB/BEARING TO REMOVE IT FROM THE AXLE. POUNDING ON THE HUB/BEARING WILL DAMAGE THE HUB/BEARING. TO REMOVE A HUB/BEARING WHICH IS CORRODED TO THE AXLE, LIGHTLY TAP ON THE DISC BRAKE CALIPER ADAPTER USING A SOFT FACE HAMMER. THIS WILL REMOVE BOTH THE DISC BRAKE CALIPER ADAPTER AND THE HUB/BEARING FROM THE AXLE. THE HUB/BEARING WILL THEN NEED TO BE REMOVED FROM THE CALIPER ADAPTER.

19. Remove the hub/bearing from the axle.
20. If the disc brake caliper adapter and hub/bearing were removed as an assembly and the two cannot be separated by hand, use the following procedure:
   a. With a helper supporting the caliper adapter in his hands, position Remover, Special Tool 8214–1 on the cast housing of the hub/bearing (Fig. 6)
NOTE: DO NOT POSITION SPECIAL TOOL ON THE INNER RACE OF THE HUB/BEARING.

b. Lightly strike Remover Special Tool 8214–1 with a hammer to remove the hub/bearing from the caliper adapter.

![Fig. 6 HUB/BEARING REMOVAL FROM CALIPER ADAPTER]

21. Using the parking brake anchor boss on the adapter as a clamping point, place the adapter in a vice. Inspect the parking brake hardware (shoe, return springs, adjuster) for damage and wear. Any part that is damaged or worn must be replaced by new parts.
22. Remove the park brake hardware (including the rubber access plug) from the adapter and install park brake hardware on the new adapter.
23. Install the new adapter on the axle.
24. Install the hub/bearing on the end of the axle.
25. Install the hub/bearing mounting bolts. In a progressive crisscross pattern, tighten the 4 mounting bolts until the caliper adapter and hub/bearing are squarely seated against the axle. Tighten mounting bolts to a torque of 129 N·m (95 ft. lbs.).
26. Install the wheel speed sensor on the hub/bearing and adapter (Fig. 3) and torque attaching bolt to 12 N·m (105 in. lbs.).
27. Using the alignment mark from step 5, install driveshaft in hub/bearing and on output shaft of rear drive line module. Driveshaft is installed by first sliding the outer joint of the driveshaft into the hub/bearing and then compressing the inner joint on the driveshaft and installing it on the output shaft of the driveline module. Do not tighten mounting bolts at this time.
28. Install the park brake cable into its mounting hole in the adapter.

NOTE: BE SURE ALL THE LOCKING TABS ON THE PARK BRAKE CABLE RETAINER ARE EXPANDED OUT TO ENSURE THE CABLE WILL NOT PULL OUT OF THE ADAPTER.
29. Install the end of the park brake cable on the park brake actuator lever.
30. For NS/GS vehicles, install a NEW horseshoe clip on the park brake cable retainer.
   The horseshoe clip must be installed with the curved end of the clip pointing straight up and the edge of the curved end facing the rear of the vehicle. For RS/RG vehicles, install the park brake cable mounting bolt to the adapter.
31. Using Gauge, Brake Shoe, Special Tool C-3919 or an equivalent, adjust the rear park brake shoe to park brake drum clearance.
32. Install rotor on hub/bearing.
33. Carefully lower the disc brake caliper and brake shoes over the rotor and onto the caliper adapter by reversing the removal procedure in step 15.

**CAUTION: WHEN INSTALLING THE GUIDE PIN BOLTS, EXTREME CAUTION SHOULD BE TAKEN NOT TO CROSS-THREAD THE CALIPER GUIDE PIN BOLTS.**

34. Apply brake grease p/n J8993704 to caliper guide pin bolts and install caliper guide pin bolts. Torque to 22 N·m (192 in. lbs.).
35. Clean all foreign material off the threads of the outer C/V joint stub shaft. Install the washer and hub nut on the stub shaft of the outer C/V joint.
36. Remove the locking pliers from the park brake cable (Fig. 4) and lower the vehicle.
37. Set the parking brake. **This is required to keep the driveshaft from rotating when tightening and torquing the hub nut and driveshaft inner joint to driveline module mounting bolts.**
38. Raise the vehicle.
39. Tighten the driveshaft inner joint to driveline module output shaft mounting bolts (Fig. 2) to a torque of 61 N·m (45 ft. lbs.).
40. Tighten the outer C/V joint hub nut to a torque of 244 N·m (180 ft. lbs.).
41. Install the spring washer, nut retainer and a new cotter pin on the stub shaft of the outer C/V joint.
42. Install tire and wheel assembly.
43. Tighten wheel mounting stud nuts in a crisscross sequence until all nuts are torqued to half specification. Then repeat the tighten sequence to full torque of 135 N·m (100 ft. lbs.).
44. Replace the left rear adapter using steps 2 through 43.
45. Lower the vehicle.
46. Fully apply and release the park brake pedal one time. This will seat and correctly adjust the park brake cables.

**CAUTION: BEFORE MOVING THE VEHICLE, PUMP THE BRAKE PEDAL SEVERAL TIMES TO INSURE THE VEHICLE HAS A FIRM BRAKE PEDAL TO ADEQUATELY STOP THE VEHICLE.**

**POLICY:**
Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

| Labor Operation No: | 05-85-05-91 | 1.4 Hrs. |

**FAILURE CODE:** Could be one or more

| P8 | New Part |